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<p>Aim: Divide numbers up to 4 digits by a one-digit number using the formal written method of short division and interpret remainders appropriately for the context.</p> <p>DfE Ready-to-Progress Criteria: Divide a number with up to 4 digits by a one-digit number using a formal written method, and interpret remainders appropriately for the context (5MD-4).</p> <p>To divide 4-digit numbers by 1-digit numbers with remainders</p>	<p>Success Criteria: I can use the formal method correctly. I can work methodically, always beginning with the largest number. I can exchange numbers correctly when necessary. I can write my remainder correctly in my answer.</p> <p>Key/New Words: Divide, division, dividend, divisor, equal, equally, digit, place value, multiplication, remainder.</p>	<p>Resources: Lesson Pack Four-Digit Place Value Chart - as required</p> <p>Preparation: Differentiated Division with Remainders Activity Sheets – one per child Diving into Mastery Activity Sheets – as required</p>
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Prior Learning: It will be helpful if children have completed lessons 1 and 2 in this series on dividing [4-Digits by 1-Digit \(without exchanging\)](#).

Learning Sequence

	<p>Remember It: Use the corresponding slide in the Lesson Presentation and display it as a static slide. This provides the perfect opportunity for partner talk or children can work individually, practising fluency-based skills on the multiplication tables.</p>	
	<p>What are Remainders? Use this section of the Lesson Presentation to introduce children to the concept of remainders. Presented in a fun and practical way, children will gain an initial understanding of what remainders are when dividing a 2-digit number. Use the prompts to promote a class discussion and show how a remainder is written in an answer to a division question. Can the children write the remainder correctly in their answer?</p>	
	<p>Dividing 3-Digit Numbers with Remainders: Building on the previous slide, use the prompts on this slide of the Lesson Presentation to support children's learning of dividing a 3-digit number with a remainder. This slide will show how to divide a 3-digit number using the formal method as well as its representation in a place value table. Children may wish to use a Four-Digit Place Value Chart to help them. Can the children exchange numbers correctly when necessary? Can the children write the remainder correctly in their answer?</p>	
	<p>Dividing with Remainders: This section of the Lesson Presentation can be used to support independent thinking or as part of a partner talk activity. Present the problems on the screen and ask the children to identify the mistakes by completing the divisions themselves. It may be helpful to supply children with mini-whiteboards or paper for this activity. Use the prompts to display the answers as part of a class discussion and encourage children to justify their thinking. Can the children exchange numbers correctly when necessary? Can the children write the remainder correctly in their answer?</p>	
	<p>4-Digit Numbers and Remainders: This section of the Lesson Presentation is optional, but would be beneficial to use to support those who are working at or above age-related expectations as part of the whole class input or in small group work. Use this slide and its prompts to demonstrate how to divide 4-digit numbers with exchanging and remainders. The number chosen will also demonstrate how to exchange correctly when the initial digit is not divisible by the divisor.</p>	
	<p>What do remainders mean? Use this slide of the Lesson Presentation to encourage the children to think carefully about what the question is asking. The answer to a division calculation with a remainder must be interpreted carefully to make sense of the remainder. In this case, the remaining brownies need a box too. I can write my remainder correctly in my answer.</p>	

	<p>Dividing with Remainders: Using the differentiated Dividing with Remainders Activity Sheets, the children complete the tasks given using place value charts to support and work systematically. It might be helpful to supply counters or blocks to help children who may need manipulatives to support their learning.</p> <div style="display: flex; justify-content: space-between;"> <div>  <p>To support children working towards expected level, children will solve division calculations using the short division formal method with usually one exchange. Some questions will require them to think about how the remainder should be included in the answer.</p> </div> <div>  <p>Children working at expected level, children will solve division problems using the short division formal method and more than one exchange. Some questions will require them to think about how the remainder should be included in the answer.</p> </div> <div>  <p>To challenge children working at greater depth, children will solve division problems using the short division formal method and more than one exchange. Some questions will require them to think about how the remainder should be included in the answer. They will also check division calculations to identify any mistakes.</p> </div> </div>	
	<p>Diving into Mastery: Schools using a mastery approach may prefer to use the following as an alternative activity. These sheets might not necessarily be used in a linear way. Some children might begin at the 'Deeper' section and in fact, others may 'dive straight in' to the 'Deepest' section if they have already mastered the skill and are applying this to show their depth of understanding.</p> <div style="margin-top: 10px;">  <p>Children complete fluency activities related to dividing with remainders</p> </div> <div style="margin-top: 10px;">  <p>Children answer reasoning questions related to dividing with remainders, ensuring they explain their reasoning.</p> </div> <div style="margin-top: 10px;">  <p>Children work individually or collaboratively on problem-solving questions related to dividing with remainders.</p> </div>	
	<p>Think it Over: Display the slide of the Lesson Presentation and use the prompts to generate either a paired, group or class discussion about which is the correct answer and why. Can the children write my remainder correctly in their answer?</p>	

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Learnit: Children will find this superb [Knowledge Organiser](#) helpful during lessons.